



PATENT

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant: Norbert Wolters et al
Examiner: Nathan Scott Mammen
Serial No.: 09/751,512 Group Art Unit 3671
Filed: 22 November 2000 (Atty. Ref. No. 08876-US)
For: AGRICULTURAL HEADER WITH CHOPPER

Moline, IL 61265

29 January 2004

APPLICANT'S APPEAL BRIEF

The Honorable Commissioner
of Patents and Trademarks
Washington, D.C. 20231
Sir:

Real Party in Interest

The real party in interest is Maschinenfabrik Kemper GmbH & Co. KG (hereinafter Kemper) having its principle place of business at Bruel, 48703 Stadthoehn. Germany. Kemper became the real party in interest by an assignment dated 16 January 2001 and recorded with the Patent Office on 19 March 2001, Reel 011637, Frame 0157.

Related Appeals and Interferences

The applicant filed an appeal of the examiner's final rejection of US Patent Application 09/727,134, filed 30 November 2000 having similar issues on constructing the prior art and claim language.

Status of Claims

Claims 1-21 are currently pending in the above-identified application. Claims 1-21 stand finally rejected, by the examiner. A correct copy of the claims is found in the attached appendix.

Status of Amendments

There are no outstanding amendments.

Summary of the Invention

A feeding and picking device 10 for a standing agricultural crop is provided with a rotating feeding device 14 and 16. The feeding device 14 and 16 is rotated about a vertical feeding axis. The picking device 18, 20 and 26 comprises a snapping channel 26 formed by snapping bars 24 under which is located snapping rolls 18 and 20. A chopping device 28 is located beneath the picking device 18, 20 and 26. The chopping device 28 defines a chopping radius that overlies the feeding radius of the feeding device 14. The chopping device 28 is rotated about a vertical axis. The chopping radius of the chopping device 28 overlaps the feeding radius of the feeding device 14 and 16 making a compact feeding and picking assembly.

Issues

The issues are:

1. Does PCT reference WO 99/03323 disclose a radius of a chopping device that overlaps the feeding radius of the feeding element?
2. Does Decoene (US Patent 4,236,369) disclose "...a picking device which separates useable parts from the plant stalks,..." as called for in claim 1?

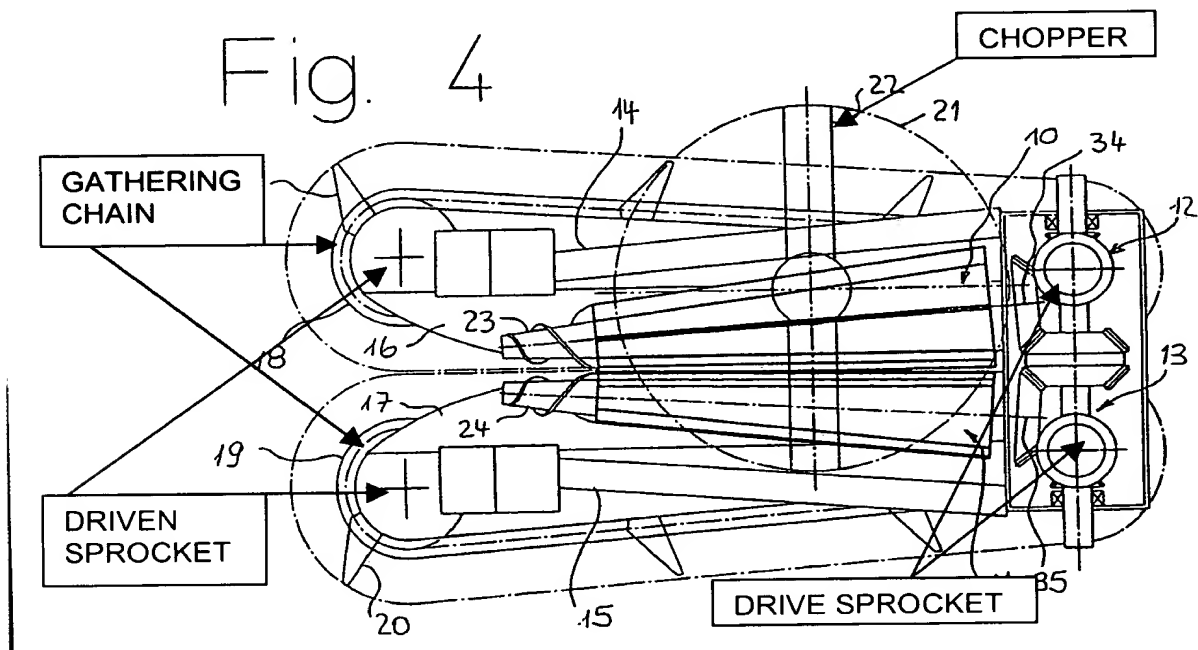
Grouping of Claims

Claims 1-21 stand and fall together.

Argument

First Rejection

The currently pending claims include one independent claim, claim 1. Claim 1 is directed to a feeding and picking device for a standing agricultural crop that is equipped with a chopping device for chopping plant stalks. The Examiner finally rejected pending claims 1-3, 5, 7, 9 and 10, under 35 USC 102(b), as being anticipated by WO 99/03323. The examiner's position is that WO 99/03323 discloses a feeding and picking device for a standing crop. The device comprises a feeding device (18, 19) having a feeding radius. The device also comprises a chopping device (22). The chopping device having a chopping radius. The examiner's position is that the feeding radius and the chopping radius overlap.



The examiner finally rejected dependent claims 4 and 8, under 35 USC 103, as being obvious over WO 99/03323.

The examiner finally rejected claim 6, under 35 USC 103, as being obvious over WO 99/03323 in view of AT 301234.

The examiner finally rejected claims 11-20, under 35 USC 103, as being obvious over WO 99/03323 in view of Herron et al (US Patent 6,032,444).

The examiner finally rejected claim 21, under 35 USC 103, as being obvious over WO 99/03323 in view of Miller (US Patent 4,148,175).

Second Rejection

The examiner rejected claims 1 and 5, under 35 USC 102, as being anticipated by Decoene. Decoene discloses a forage harvester. A forage harvester is an agricultural machine that cuts a standing crop, chops the cut crop into smaller pieces and transports the smaller pieces to a forage wagon. The examiner asserts that Decoene is provided with a picking device (3) which separates useable parts from the plant stalks (the bottom root portion of the plant stalks).

First Issue

This is truly a case of first impression.

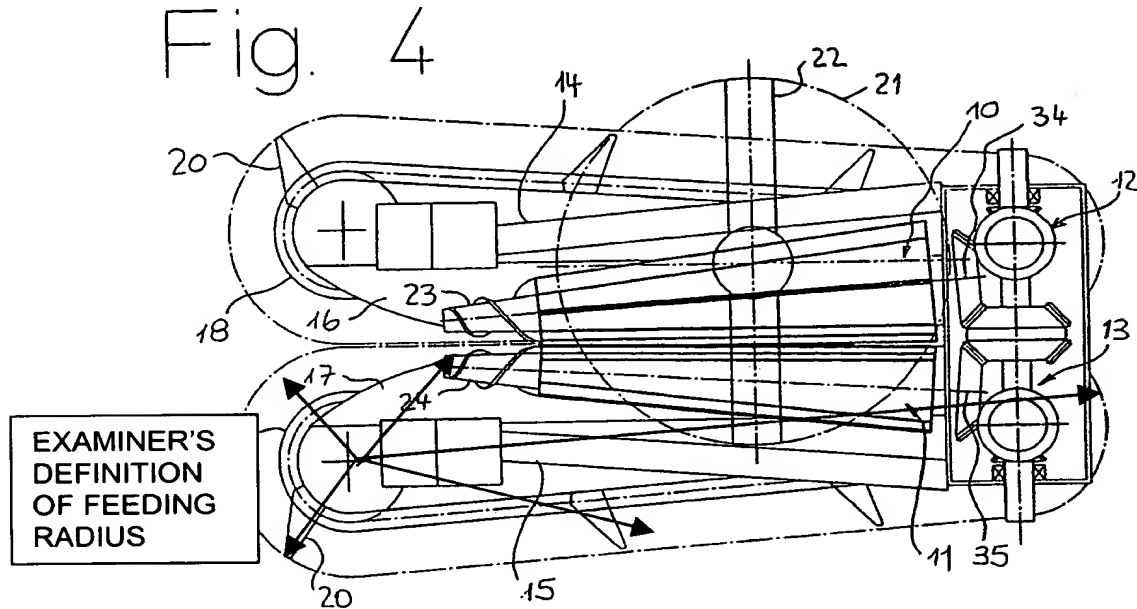
WO 99/03323 discloses a feeding and picking device having a relatively conventional feeding assembly comprising two gathering chains that follow an oblong path. The applicant asserts that the oblong path does not define a feeding radius as called for in pending independent claim 1. As such, there is no way the chopping radius of the chopping device overlaps the non-existent feeding radius.

This issue was previously appealed and an appeal brief was filed by the applicant. In response to that brief the examiner issued another Office Action reasserting the rejections based on WO 99/03323.

It is the examiner's position that each of the rotating gathering chains (18, 19) of WO 99/03323 have a feeding radius. The center of the feeding radius is defined by the cross hair locating the center of the feed chain sprocket. In the previous final

rejection the examiner stated:

"A geometric shape that has a portion of its surface defining a circular or partially circular shape, such as an ellipse defined by gathering chains in the WO 99/03323 publication, inherently has a radius."



In the applicant's last appeal brief, the applicant asserted that the examiner's definition is entirely too broad.

In response to the earlier appeal brief, the examiner revised his definition stating that "...a definition of radius is a bounded area that defines a range of influence." This definition is even broader as it does not take into account any properties of a circle. The examiner concedes that this definition encompasses rectangular and polygonal shaped areas. Actually the examiner's new definition does not only include elements lying in a plane but also elements lying outside the plane. For example, the gathering chains gather in a standing plant, as such under

the examiner's definition the gathering elements would influence the top of the plant and the roots of the plant being gathered and as such would be included in the radius definition.

In the WO 99/03323 reference each gathering chain (18, 19) extends between two chain sprockets. Each drive sprocket defines an axis of rotation. Between the sprockets the chain follows a straight tangential path to the other sprocket. There is no radius defined by this straight tangential path. At best each gathering chain defines two semi-circular radius portions defined by the engaged portion of each sprocket. Neither semi-circular radius portions overlap the chopping radius.

Anticipation, under 35 USC 102, requires that a single prior art reference teach every aspect of the claimed invention either expressly or inherently. See Verdegaal Brothers Inc. v. Union Oil Company of California, 814 F.2d 628, 631, 2 USPQ 1051, 1053 (Fed. Cir. 1987). WO 99/03323 does not teach the overlapping feeding radius and chopping radius. Therefore WO 99/03323 does not anticipate claims 1-21.

Second Issue

Independent claim 1 calls for "...a picking device which separates useable parts from the plant stalks,..." The examiner asserts that Decoene is provided with a picking device 3. Element 3 in Decoene are transverse feeding rolls see column 4, lines 34-36. The feeding rolls 3 do not separate the usable parts (cobs, seed pods and heads of grain) from the stalks, they merely transfer the plant stalk including the useable parts to a chopping assembly, not shown. The Decoene forage harvester, like all forage harvesters harvests the plant stalks together with the useable parts. It chops the plant stalks with the useable parts thereon and conveys the chopped parts to a forage wagon. The chopped forage is stored and feed to animals at a latter date.

As discussed above, anticipation, under 35 USC 102, requires that a single prior art reference teach every aspect of the claimed invention either expressly or inherently. See Verdegaal Brothers Inc. v. Union Oil Company of California, 814 F.2d 628, 631, 2 USPQ 1051, 1053 (Fed. Cir. 1987). Decoene does not teach a

picking device for separating the useable parts from the plant stalks. Therefore Decoene does not anticipate claims 1 and 5.

Reversal of the rejection is respectfully requested.

Any fees or charges due under 37 CFR 1.17(f) or otherwise due as a result of filing of the present paper may be charged against Deposit Account 04-0525. Two duplicates of this page are enclosed.

Respectfully,



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Date

Deere & Company

Cindy Whitacre 29 January 2004
Signature Date

Appendix

1. A feeding and picking device for feeding and picking a standing agricultural crop wherein individual plants in the crop are provided with plant stalks, the device comprising a rotating feeding device having a feeding radius, the rotating feeding element grasp plant stalks and directs the plant stalks to a picking device which separates useable parts from the plant stalks, a chopping device chops the plant stalks, the chopping device has a chopping radius that overlaps the feeding radius of the feeding device.

2. A feeding and picking device as defined by claim 1 wherein the feeding element acts as a counterknife to the chopping device.

3. The feeding and picking device as defined by claim 1 wherein the picking device has a length and the chopping radius of the chopping device extends throughout the length of the picking device.

4. The feeding and picking device as defined by claim 3 wherein the chopping radius of the chopping device extends to an area upstream from the picking device.

5. The feeding and picking device as defined by claim 1 wherein the chopping device has a chopping axis and the feeding axis of the feeding device correspond to one another.

6. The feeding and picking device as defined by claim 1 wherein the picking device has a rear end and the chopping device is mounted on the rear end of the picking device.

7. The feeding and picking device as defined by claim 1 wherein the feeding device is provided with an upper feeding element which is mounted above the picking device.

8. The feeding and picking device as defined by claim 1 wherein the feeding device is provided with a lower feeding element which is mounted beneath the chopping device.

9. The feeding and picking device as defined by claim 1 wherein the feeding device is provided with an upper feeding element and a lower feeding element, and the chopping device is provided with at least one chopping knife, the chopping knife

being located between the upper and lower feeding elements.

10. The feeding and picking device as defined by claim 9 wherein at least one of the lower feeding element and the upper feeding element is designed to transport grasped plants throughout the length of the picking device.

11. The feeding and picking device as defined by claim 10 wherein the upper feeding element has a leading surface with a rejecting transporting action and a trailing surface with an aggressive transporting action.

12. The feeding and picking device as defined by claim 11 wherein the chopping device has a chopping axis and the feeding axis of feeding device are approximately parallel to one another.

13. The feeding and picking device as defined by claim 12 wherein the chopping axis is substantially vertical.

14. The feeding and picking device as defined by claim 13 wherein the chopping device rotates in a chopping direction and the feeding device rotates in a feeding direction, the chopping direction and the feeding direction are identical.

15. The feeding and picking device as defined by claim 13 wherein the chopping device rotates in a chopping direction and the feeding device rotates in a feeding direction, the chopping direction and the feeding direction are opposite.

16. The feeding and picking device as defined by claim 13 wherein the chopping knife has a front cutting edge and a rear cutting edge.

17. The feeding and picking device as defined by claim 13 wherein the chopping knife is rigidly mounted to the chopping device

18. The feeding and picking device as defined by claim 13 wherein the chopping knife is suspended from the chopping device so that it oscillates.

19. The feeding and picking device as defined by claim 13 wherein the chopping knife has a smooth edge.

20. The feeding and picking device as defined by claim 13 wherein the chopping knife has a splicing knife.

21. The feeding and picking device as defined by claim 1 further comprising a guiding mechanism for depositing chopped plant material in the form of a windrow.